

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1. **(Currently Amended)** An integrated optoelectronic module array, comprising:
 - a component structure including a plurality of optoelectronic sub-modules, each of which comprises an optical transceiver module including a receive port associated with a receiving optical subassembly (ROSA) and a transmit port associated with a transmission optical subassembly (TOSA), the component structure being integrally formed such that each optoelectronic sub-module shares at least one wall portion with an adjacent optoelectronic sub-module, wherein the optical sub-modules are disposed belly-to-belly such that the receive ports of adjacent sub-modules are disposed in a row along a length of the component structure and the transmit ports of adjacent sub-modules are disposed in a row along the length of the component structure and adjacent to the row of receive ports; and
 - a latching mechanism that enables the component structure to be selectively secured at least partially within an outer cage.
2. **(Original)** An integrated optoelectronic module array as defined in claim 1, wherein the outer cage is affixed to a host board.
3. **(Original)** An integrated optoelectronic module array as defined in claim 2, wherein the host board is contained within an optical device, the optical device being selected from the group consisting of optical switches and optical routers.
4. **(Original)** An integrated optoelectronic module array as defined in claim 2, wherein an optical interface portion of the component structure extends from a first open end of the outer cage, and wherein a plurality of printed circuit board card portions extends from a second open end of the outer cage.

5. **(Original)** An integrated optoelectronic module array as defined in claim 4, wherein the optical interface portion includes at least one optical port for each of the optoelectronic sub-modules.

6. **(Original)** An integrated optoelectronic module array as defined in claim 4, wherein each of the plurality of printed circuit board card portions is received by a respective one of a plurality of connector receptacles connected to the host board.

7. **(Canceled)**

8. **(Original)** An integrated optoelectronic module array as defined in claim 1, wherein the outer cage provides electromagnetic interference shielding for the optoelectronic sub-modules.

9. **(Previously Presented)** An integrated optoelectronic module array as defined in claim 1, further comprising a housing that contains at least a portion of the component structure.

10. **(Original)** An integrated optoelectronic module array as defined in claim 1, wherein the component structure is configured to minimize spacing between the optoelectronic sub-modules.

11. **(Currently Amended)** An optical device, comprising:
a first host board having an outer cage affixed thereto;
an integrated optical transceiver array, including:
a component structure at least partially contained within a housing, the component structure including a plurality of optical transceiver sub-modules, the component structure being integrally formed such that each optical transceiver sub-module shares at least one wall portion with an adjacent optical transceiver sub-module, the optical transceiver sub-modules being disposed such that transmit optical ports of the optical transceiver sub-modules are adjacent to transmit optical ports of adjacent optical transceiver sub-modules and receiving optical ports of the optical transceiver sub-modules are adjacent to the receiving optical ports of adjacent optical transceiver sub-modules; and
a latching mechanism that enables the component structure to be selectively secured within the outer cage.

12. **(Original)** An optical device as defined in claim 11, wherein four optical transceiver sub-modules are included in the component structure.

13. **(Original)** An optical device as defined in claim 11, wherein at least one optical fiber connector is selectively connected with at least one of the optical transceiver sub-modules, and wherein a release sleeve is slidably attached to the at least one optical fiber connector.

14. **(Previously Presented)** An optical device as defined in claim 11, wherein the latching mechanism is at least partially attached to the component structure and includes:
a rotatable bail; and
a pivot block having a lock pin, the pivot block being pivotally attached to the rotatable bail, wherein the lock pin engages a portion of the outer cage when the bail and the pivot block are positioned in a specified configuration to selectively secure the integrated optical transceiver array.

15. **(Original)** An optical device as defined in claim 11, wherein the outer cage is positioned between the first host board and a second host board.

16. **(Original)** An optical device as defined in claim 11, wherein the optical device includes a plurality of integrated optical transceiver arrays.

17. **(Original)** An optical device as defined in claim 16, wherein two integrated optical transceiver arrays are positioned on opposite surfaces of the first host board, wherein the latching mechanisms of the integrated optical transceiver array each engage the first host board.

18. **(Currently Amended)** An integrated optical transceiver module array, comprising:

a housing;

a component structure at least partially contained within the housing, the component structure including a plurality of optical transceiver sub-modules that are integrated into a single structure; and

a latching mechanism that selectively engages an outer cage, the outer cage receiving at least a portion of the integrated optical transceiver module array; and

a plurality of optical fiber connectors that are each connected to the optical ports of respective optical transceiver sub-modules, wherein each optical fiber connector includes a release sleeve that is slidably engaged with the optical fiber connector, wherein each release sleeve includes a body defining open first and second ends, wherein a portion of the body further defines a curved inner cam surface.

19. **(Original)** An integrated optical transceiver module array as defined in claim 18, wherein the outer cage is mounted to a host board of an optical device, and wherein the outer cage provides electromagnetic interference shielding for the plurality of optical transceiver sub-modules.

20. **(Original)** An integrated optical transceiver module array as defined in claim 19, wherein each optical transceiver sub-module includes dual optical ports.

21. **(Original)** An integrated optical transceiver module array as defined in claim 20, wherein the component structure includes at least one card-edge connector extending from a rear end of the outer cage, the card-edge connector electrically connecting with a connector receptacle on the host board.

22. **(Original)** An integrated optical transceiver module array as defined in claim 21, wherein the component structure includes four optical transceiver sub-modules.

23. **(Canceled)**

24. **(Currently Amended)** An integrated optical transceiver module array as defined in claim [[23]]18, wherein each optical fiber connector is an LC duplex connector having a connector latch for disengaging the LC duplex connector from a respective one of the optical transceiver sub-modules.

25. **(Original)** An integrated optical transceiver module array as defined in claim 24, wherein each release sleeve is shaped to correspond to the exterior shape of the respective LC duplex connector.

26. **(Canceled)**

27. **(Currently Amended)** An integrated optical transceiver module array as defined in claim [[26]]18, wherein the release sleeve is selectively slidable between a first position and a second position, and wherein in the second position the curved inner cam surface engages the connector latch of the LC duplex connector to enable it to disengage from the respective one of the optical transceiver sub-modules.

28. **(Previously Presented)** An integrated optical transceiver module array as defined in claim 27, wherein the release sleeve is composed of a thermoplastic material.

29. **(Currently Amended)** An integrated optoelectronic module array, comprising:
a component structure including a plurality of optical transceiver sub-modules,
the plurality of optical transceiver modules being integrated into a single structure; and
a latching mechanism that enables the component structure to be selectively
secured at least partially within a cage, the latching mechanism including:

a rotatable bail configured to rotate over a width of the component
structure and around only a particular one of the optical transceiver sub-modules
and between the particular one of the optical transceiver sub-modules and optical
transceiver sub-modules adjacent to the particular one of the optical transceiver
sub-modules; and

a pivot block.

30. **(Previously Presented)** The integrated optoelectronic module array as recited in
claim 29, wherein each optical transceiver module shares a structural element with an adjacent
optical transceiver module.

31. **(Previously Presented)** The integrated optoelectronic module array as recited in
claim 30, wherein the shared structural element comprises a wall portion.

32. **(Currently Amended)** An integrated optical transceiver module array,
comprising:

a housing;
a component structure at least partially contained within the housing, the
component structure including a plurality of optical transceiver sub-modules that are
integrated into a single structure, each optical transceiver sub-module including dual
optical ports;

a latching mechanism that selectively engages an outer cage, the outer cage
receiving at least a portion of the integrated optical transceiver module array; and

a plurality of optical fiber connectors that are each connected to the optical ports of respective optical transceiver sub-modules, each optical fiber connector including a release sleeve that is slidably engaged with the optical fiber connector, the release sleeve comprising a body defining open first and second ends, a portion of the body further defining a curved inner cam surface, wherein each optical fiber connector comprises an LC duplex connector having a connector latch for disengaging the LC duplex connector from a respective one of the optical transceiver sub-modules, and wherein the release sleeve is selectively slidable between a first position and a second position such that in the second position the curved inner cam surface engages the connector latch of the LC duplex connector to enable the LC duplex connector to disengage from the respective one of the optical transceiver sub-modules.

33. **(Cancelled)**

34. **(Previously Presented)** An integrated optical transceiver module array as defined in claim 32 wherein the release sleeve is composed of a thermoplastic material.